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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/381,839	09/24/1999	GUNTER DOEMENS	P99.1690	4490
30596 7590 05/18/2007 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195			EXAMINER LAROSE, COLIN M	
			ART UNIT 2624	PAPER NUMBER
			MAIL DATE 05/18/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/381,839	Applicant(s) DOEMENS ET AL.	
	Examiner Colin M. LaRose	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 16 April 2007 has been entered.

Response to Amendments and Arguments

2. Applicant has amended claims 4 and 7 to denote that the encoded illumination patterns include a stripe pattern for each of the at least three colors, and the stripe patterns have different periodicity in a video frame. This amendment is considered to overcome the previous rejection insofar as Di Matteo (U.S. 4,511,252) does not appear to disclose or suggest the stripe patterns having "different periodicity in a video frame." For example, as shown in figures 2, 3, and 5 of Di Matteo, the periodicity of the color stripe patterns is varied for successive image frames (corresponding to the different frames of the film). However, for any one image frame, the periodicity of each of the different color stripe patterns is the same—see, e.g., figure 5 where the red, green, and blue stripes have a low frequency in the left frame and a high frequency in the right frame. In sum, Di Matteo does not utilize stripe patterns having different periodicities within a single video frame, as now required by the claims.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 4-7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 4 and 7 require that the at least three different colored stripe patterns exhibit "different periodicity in a video frame." Examiner construes this language to denote that a single video frame contains at least a first color stripe pattern at a first periodicity, a second color stripe pattern at a second periodicity, and a third color stripe pattern at a third periodicity, wherein each of the first, second, and third colors are all different and each of the first, second, and third periodicities are all different.

It does not appear that the Specification fairly discloses or suggests that a single video frame contains at least three different colored stripe patterns having different periodicities, as claimed. Applicant relies upon p. 5, lines 19-22, of the Specification in support of this limitation: "An encoded illumination is first projected onto the object 7 via the digital micromirror device in the color image evaluation such that three striped patterns with respectively different color (for example, red, green, blue) and periodicity are simultaneously present in a video frame."

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Applicant has construed the phrase, "three striped patterns with respectively different color (for example, red, green, blue) and periodicity are simultaneously present in a video frame" to mean that both the colors and the periodicities of the striped patterns are different within a single frame—that is, "three striped patterns with respectively different color (for example, red, green, blue) and [different] periodicity are simultaneously present in a video frame."

The above passage from the Specification possibly suggests that both the colors and the periodicities of the stripes are different among the at least three stripes within a single video frame. However, lines 27-28 of p. 5 contradict such a conclusion: "... whereby the stripes exhibit different periodicities in successive images." Also on p. 3 at lines 22-23, the Specification discusses gray code illumination where "n different periodicities [] are registered in n images." These passages tend to show that the invention contemplates stripe patterns of a single periodicity in one video frame followed by stripe patterns of another periodicity in a second video frame, rather than different stripes of different periodicities within a single video frame, as presently claimed.

[The Specification has apparently been translated into English from a foreign language and has been amended extensively to correct grammatical and idiomatic errors (see amendments to the Specification, 6/24/99). This may contribute to the presence of the ambiguous language at lines 19-22 on p. 5.]

For the above reasons, it does not appear that the intent of lines 19-22 of p. 5 was to denote different periodicities within a single image, as now claimed. Therefore, the present amendments to claims 4 and 7 are considered to constitute new subject matter that was not possessed by the Applicant at the time the invention was made.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Colin M. LaRose whose telephone number is (571) 272-7423. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000. Any inquiry of a general nature or relating to the status of this application or proceeding can also be directed to the TC 2600 Customer Service Office whose telephone number is (571) 272-2600.



Colin M. LaRose
Group Art Unit 2624
7 May 2007